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# Similarities and differences between evaluation protocols in physical therapy and occupational therapy – a case study

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**Abstract**

The purpose of study was to compare the evaluation algorithms of a health services client from the perspective of physical therapy (PT) and occupational therapy (OT). We considered as a case-study a 65-year-old man, living in an urban area, diagnosed with chronic fatigue syndrome and depression. We applied for this client the evaluation protocols of the PT and of the OT domains. As a conclusion, we have ascertained that these evaluation protocols are related, but not superimposable, both professions dealing with health issues. In such circumstances, the need of therapeutic complementarity becomes evident, for the full benefit of the client.



*Keywords:* Evaluation, physical therapy, occupational therapy, case-study;

## 1. Introduction

Physical therapy (PT) and occupational therapy (OT) are currently very popular professions, with high demand and recognition on the labour market. Practically, the PT and OT are closely linked by the mutual interest in rehabilitation and often these domains are overlapping in educational settings and health services (Van Deusen & Brunt, 1997). Although professionals working in these related fields area dealing both with health issues, the perspective on evaluation and treatment are quite different.

The use of the evaluation protocols in PT and OT is motivated by the need to highlight the efficiency of the field practice and to justify the contribution of each profession in the process of improving of the client's (patient's) health status. It is important to note that for both domains, the evaluation process is regulated by international rules and professional standards, according with professional bodies and other representative organizations. In any

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circumstances, evaluation must be based on clinical reasoning and research evidence and requires, among other things, direct observation, the collection, systematic analysis and interpretation of data.

The relevance and application of evaluation in PT start form the principle that this profession has an obligation to evaluate its many treatment and testing methods to ascertain their value, importance, and usefulness (Michels, 1982).

As it is mentioned in the World Confederation for Physical Therapy (WCPT) Policy Statement, the physical therapist evaluate and assess patient/client or needs of a client group, investigates the body's systems to help determine the cause of complaints or functional limitation, make professional clinical judgments regarding patients/clients, formulate a diagnosis, prognosis and plan of intervention (WCPT, 2011).

On the other hand, in OT evaluation is viewed as an integral part of the occupational therapy process, being applied as initial assessment, ongoing assessment and later assessment, in order to measure the assets and deficits of the client that relate to his referral for therapy (Creek & Bullock, 2008).

We appreciate that the scientific bases of evaluation in OT are: client-centered and/or family-centered, making the evaluation as a top down process, reliance on occupation and context (Rogers, 2004).

The evaluation from the OT perspective covers the same classical stages that include observation, assessment, description, analysis and interpretation of aspects of occupational performance. Usually, the specific evaluation approach in OT appeals to measurement processes and quantification by reference to scales and scores that accurately circumscribe a precise occupational situation.

As a preliminary assuming, we agree that the purpose of evaluation both in PT and OT is not to confirm or discover a medical diagnosis and, moreover, evaluation has not as finality the inventory of the client's problems or symptoms.

In these circumstances it becomes very challenging to demonstrate the similarities and differences between evaluation protocols in PT and OT. Thus, the purpose of this study was to compare the evaluation algorithms of a health services client from the perspective of a physical therapist and respectively, of an occupational therapist.

## 2. Material and methods

We considered as a case-study a 65-year-old man, widow since 10 years, retired from professional activity since one year, living alone in an urban area (his unique daughter being married in another city), diagnosed with chronic fatigue syndrome and depression. This kind of comorbidity is relatively often met in PT and OT practice and it raises problems of diagnostic, evaluation and therapeutic approach, due to multiple inferences in pathogenesis of the disease.

The client reported as principal complaints a severe chronic fatigue, out of proportion to his efforts, muscle and joint pain, associated with sleep disorder, mental confusion, anxiety, sentiment of useless, lack of interest and apathy, recurrent headaches and nausea. The symptomatology lasted for a period of 12 months, with worsening in the last 4 weeks and it was not improved by rest or usual medication (antidepressants, nonsteroidal anti-inflammatory agents, analgesic drugs etc.), the patient being affected in terms of reducing of the level of activities of daily living (ADL).

We applied for the same client the evaluation protocol of the PT domain (history and physical examination, functional and laboratory tests) and the evaluation protocol from the OT perspective, using as frame of references the cognitive behavioural approach (person, environment and occupation model for intervention).

For each evaluation protocol we have obtained a different clinical pattern, which will be detailed in the following chapter, trying to compare the results of two different types of queries from a common perspective.

## 3. Findings

The PT evaluation in chronic fatigue syndrome is based on history, physical examination and routine laboratory tests, in order to exclude other medical conditions with the same clinical features. The laboratory testing in this case

usually consists of blood analysis, renal, hepatic and thyroid function, as well as rheumatic and viral screens (Nijs et al., 2004).

The medical records are also very important and must be reviewed in order to find if patient suffered from organic or psychiatric illnesses; in this case we ascertained that he was diagnosed with chronic depression since one year ago.

From the PT perspective, we were interested about mobility, transfer, muscle and joint function (range of motion – ROM, gross and fine motor skills), strength, endurance, muscle tone and myofascial restrictions, cardiopulmonary fitness, balance, gait, posture and core stability, feeding and oral motor skills, neuromotor development, sensory integration, use of assistive technology, functional assessment of activities of daily living etc.

Specifically, for a geriatric patient, the physical therapist realizes a comprehensive musculoskeletal and sensory neurologic assessment, that determines the patient's physical, psychological and social needs. The finality of the evaluation is to obtain information that allows a multidisciplinary intervention team to develop a plan to maximize the elderly ability to better function independently, in their social, personal and professional environments.

The objective data gathered for the physical therapist through the manual muscle testing protocol and functional tests were nonspecific and can be resumed as following: the patient had significant muscle hypotonia (symmetric, especially pronounced in the musculature of the limbs), normal range of motion, increased lumbar lordosis, muscle and multi-joint pain unsteady gait, weakness on balance, difficulty with performing his ADL and signs of physical deconditioning.

Due to the incertitude linked to the patient clinical status, from the physical therapist perspective it was proposed an assessment of his fatigue level. Thus, it was applied the daily observed fatigue (DOF) questionnaire, which is a classical instrument, with good psychometric qualities (Vercoulen et al., 1997). Practically the patient recorded in a diary his level of fatigue, rated four times a day on a Likert type scale (from 0 – no fatigue to 4 – maximal fatigue), the daily sum score ranging from 0 to maximum 16 points. At the end of the investigated period (after 12 consecutive days), we calculated the average score and we obtained the 8.5 value, that can be interpreted as an important functional impairment.

Of course, after this functional evaluation, the therapeutic management of the patient must circumscribe as general objective the physical readaptation of the patient to a more active life style, in the circumstances of disrupting the vicious circle established between muscle fatigue, depression and deconditioning.

The next step of the research was to apply, for the same subject, the OT evaluation protocol, by using the same physiological and pathological antecedents and medical records. We tried also to temporally overlap the PT and OT assessments in order to obtain and to compare the same characteristics of the subject.

We studied the specialty literature and the researches in the OT field and we found out that the cognitive behaviour therapy represents a recommended approach for the chronic fatigue syndrome. This frame of references considers that the cognitive function and beliefs influence individual behaviour. For this reason, analyse of the client's complaints must try to put into evidence the psychological factors that are crucial for rehabilitation process (Prins & Bleijenberg, 1999).

The first step was to interview the client according to the OT practice framework, in his familiar setting. Through this method we established the moment when the client became extremely fatigued as being the time when he had retired from work. Since then, he progressively started to feel tired and later exhausted, with muscular pains, insomnia, troubles in focusing in routine tasks, all of these determining him to become loneliness, to withdraw from the family and to avoid social contacts.

It is obviously that the client's cognitive, emotional and behavioural reactions interfered with his complaints, inducing the somatization of mental distress and the worsening of his clinical status. In the same interpretation, most authors consider that patients with chronic fatigue syndrome suffer for chronic physical debilitation, reduced neuropsychological functioning and changes in emotional well-being, all of these having a major negative impact on quality of life (Tiersky et al., 2003).

It appears as significant the relation between the onset of the disease and a stressful life event, like retirement form work for a solitude person, in the same sense other authors already having stated that such causal connections exist at physiopathological level (Hatcher & House, 2003).

After the interview, we realized a functional assessment of the client and we identified heterogeneous and nonspecific clinical signs, the same as presented in the previous part of the paper (muscle weakness and hypotonia,

postural impairment, gait deficit etc.). From the client-centered perspective, under the clinical and professional reasoning model, we recorded difficulties in establishing the intensity of the somatic dysfunctions, linked to the comorbidity (chronic fatigue and depression).

Instead, it was easier to evaluate the client's strengths, identify problem areas, determine what kind of OT intervention is appropriate and establish realistic goals for the rehabilitation plan. For this purpose we used the Canadian Occupational Performance Measure (COPM), which is a valid instrument that focuses on occupational performance problems and enables a detailed exploration of life activities that are important and meaningful for a person (Dedding et al., 2004).

We identified as most significant problem of the client his need of friends and family for permanent contact (performance score 3, satisfaction score 4). Most occupational therapists are using the Person-Environment-Occupation (PEO) model in order to enable clients to successfully engage in meaningful and relaxing occupations in chosen environment, because they consider the occupational performance as the result of the dynamic relationship between the person, their environment and their occupations and roles (Strong et al., 1999).

The analysis of the PEO transaction for friends and family socialization helped us to establish SMART objectives (S – Specific, M – Measurable, A – Achievable, R – Relevant, T – Time limited) for our client's rehabilitation: enabling him to spend daily one hour in leisure group activities, by developing his interest in social activities and in communication with other people.

At this point we have stopped the case study analysis due to ethical considerations, because it is not possible to apply two different interventions plans for the same client only for research interests. But, as general recommendations, there are essentials for both approaches (PT and OT alternatives) the monitoring of the intervention through ongoing assessments and, of course, a final assessment. These are very important for the feedback and for discovering of residual problems, for taking the decision of discharging the client, eventually with a follow-up plan (Creek, 2008).

## 4. Conclusion

The presented case study helped us to understand how PT and OT can empower a client with a chronic and multifactorial comorbidity, under the premises of a correct and professional evaluation. In practice, often the physical therapist and the occupational therapist interact during the rehabilitation process, as members of the same multidisciplinary intervention team. They have specific job description and job specifications, but often their professional and transversal competences are intertwined in field tasks, all of these for the unique interest of the client.

The similarities of the evaluation for both therapists range from the need to conduct an adequate assessment that circumscribed the medical diagnosis of the client. As differences, the physical therapist is more interested about the functional level of the subject, while the occupational therapist, although is more client-centred, uses a holistic perspective.

Starting from the idea that the intervention strategies in PT and OT are strongly influenced by the clinical status of the client, we ascertained that the evaluation protocols in PT and OT are related, but not superimposable. In these circumstances, the need of therapeutic complementarity becomes evident, for the full benefit of the client.

This study has demonstrated the usefulness of different measurements, evaluations and interventions for a complex clinical situation, for which traditional medicine has generally been disappointing (Ross et al., 2004). The alternative of evaluations and interventions for such clinical cases are welcome, in the context of a correct appreciation of the role of physical and psychological factors that can be emphasised.

Therefore, physical exercise and occupational intervention, in different ways of applications that require increasing activity levels, may improve quality of life and function in elderly people with chronic fatigue syndrome and associate depression.

We can finally affirm that the evaluation in PT and OT assures the basis for a therapeutic success, the more as it goes on the idea of interdisciplinarity.

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